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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,432	08/21/2001	Christopher Chapman	ATKINSON	2866
7590	03/11/2004			
James C Wray 1493 Chain Bridge Road Suite 300 McLean, VA 22101			EXAMINER ZAMANI, ALI A	
			ART UNIT 2674	PAPER NUMBER 8

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/869,432

Applicant(s)

CHAPMAN ET AL.

Examiner

Ali A. Zamani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 37-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. (US Pat. No. 6,452,585 B1) in view of Swan et al. (US Pat. No. 6,351,222).

In regard to claims 37 and 47, Horton et al. discloses a method and apparatus for processing a signal to determine a spatial position comprising: a signal input to determine a spatial position (col. 2, lines 15-23), a processing (micro control unit) (col. 3, lines 12-14), wherein processing receives input signals from input and produces an output signal indicative of spatial position by executing instructions read from memory (see Figs 4 and 5, col. 5, lines 50-55). Horton also teach the processing of interpolation (col. 6, lines 7-11). Horton does not teach or suggest a "memory means stores a plurality of signal templates; said processing means processes an input signal to produce transformed data is correlated to an active spatial position; said processing means compares said transformed data with said stored templates to produce a similarity score for each of said templates; and said processing means interpolates a plurality of selected similarity scores to produce said output data identifying said active spatial position".

However, Swan discloses a method and apparatus for processing acoustic and gesture input commands by an computer (12), includes a signal processing module (16) further includes a processing module (22) and memory (24) (see Figs 1-3, col. 2, lines 49-67). Swan teaches a memory (24) stores a plurality of signal templates (80) (Fig. 3, col. 6, lines 19-28) and processing an input signal (90) to produce transform data that conveys a characteristic of input signal (82 and 84) to an active position (see steps 76, 78,

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and 80, col. 6, lines 7-25). Swan further teaches processing of the stored signal templates (80) which produces a similarity score (step 82, 84 and 90) for each of the templates (step 80) (col. 6, lines 36-45). Thus,

it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Swan in the method of Horton to provide a method and apparatus

Claims 38-46 and 48-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton in view of Swan and further in view of Yasutake (US Pat. No. 6,597,347).

In regard to claim 38, Horton-Swan discussed above. Horton-Swan substantially teaches the above claimed limitations except for teaching a “plurality of transducer means wherein each of the transducer means is configured to produce an input signal”. However, Yasutake discloses a method and apparatus for providing a touch-sensitive input which includes a plurality of transducers (col. 1, lines 50-55) wherein each of the transducer is configured to produce an input signal by a multiple coordinate controller device (105) (see Figs 1-3, col. 3, lines 40-45).

Hurthermore, the controller (105) is capable of providing the precesion manipulation of position and spatial orientation of an object (col. 3, lines 46-54). Thus, it would have been obvious to one of ordinary skill in the art

As to claim 39, Horton discloses an apparatus as cited in claim 37, wherein the processing means combine the plurality of spatial positions to identify a location of a common surface (col. 2, lines 50-65).

In regard to claims 40 – 46 and 48-56, Swan teaches a method and apparatus as cited in claim 37, processing an input command device would use radio frequency transmissions (col. 1, lines 29-34) of an active input signal (col. 3, lines 12-14). Yasutake discloses a method and apparatus for providing a touch-sensitive input which includes a plurality of acoustic transducers

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(col. 1, lines 50-55) wherein each of the transducer is configured to produce an input signal by a multiple coordinate controller device (105) (see Figs 1-3, col. 3, lines 40-45) having a three-dimensional body with a first surface portion and second surface portion and the transducers are arranged to generate input signals in response to movements made against the surface (col. 3, lines 46-54). Yasutake also teaches the surface (605) having six faces or sides is finger operable (Figs 4a and 4b) and the surface fully enclosed and can be any shape (col. 8, lines 42-47).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ali Zamani

February 23, 2004

A handwritten signature in black ink, appearing to read 'Steven Saras', is written over a faint, larger signature.

**STEVEN SARAS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**